

AMENDMENTS TO THE CLAIMS

1. **(Currently Amended)** A file recording apparatus for recording data onto a recording medium which is written in clusters and erased in blocks each composed of a predetermined number of contiguous clusters, the file recording apparatus comprising:

a receiving unit configured to receive a request for writing data of a specific one of a plurality of files onto the recording medium;

a plurality of file buffers each for a different one of the files, and each of said plurality of file buffers being larger than one block size~~plurality of files~~;

a data accumulating unit configured to accumulate the data requested to be written, in one of the ~~plurality of~~ file buffers corresponding to the specific ~~file~~one of the plurality of files;

a judging unit configured to judge whether data having been accumulated by the data accumulating unit is no smaller than a block size; and

a writing unit configured, if the judging unit judges affirmatively, to extract a block of data from the accumulated data and to write the extracted data into a free block of the recording ~~medium, wherein~~medium.

the judging unit judges that the accumulated data is no smaller than the block size, when a total of quotients each calculated by dividing a size of data accumulated in respective one of the file buffers by a cluster size is no smaller than the predetermined number, and

the writing unit extracts data from the respective file buffers cluster by cluster until the predetermined number of clusters is reached, and writes the extracted data to the free block of the recording medium.

2. **(Previously Presented)** The file recording apparatus according to Claim 1, wherein the judging unit judges affirmatively if data having been accumulated in a specific one of the plurality of file buffers to which the data accumulating unit most recently accumulated data is no smaller than the block size, and

the writing unit extracts a block of data from a top of the specific one of the plurality of file buffers, and writes the extracted data to the free block of the recording medium.

3. **(Previously Presented)** The file recording apparatus according to Claim 1, wherein

the judging unit judges affirmatively when a total of quotients each calculated by dividing a size of data accumulated in a respective one of the plurality of file buffers by a cluster size is no smaller than the predetermined number, and

the writing unit extracts data from the respective one of the plurality of file buffers cluster by cluster until the predetermined number of clusters is reached, and writes the extracted data to the free block of the recording medium.

4. **(Previously Presented)** The file recording apparatus according to Claim 1, further comprising:

an erasing unit configured to erase the free block before the writing unit writes the extracted data to the free block.

5. **(Currently Amended)** A control method for a file recording apparatus that includes a plurality of file buffers each for a different one of a plurality of files and that records data onto a recording medium, the recording medium being written in clusters and erased in blocks each composed of a predetermined number of contiguous clusters, the method comprising:

a receiving step of receiving a request for writing data of a specific one of a plurality of files onto the recording medium;

a data accumulating step of accumulating the data requested to be written, in one of the plurality of file buffers corresponding to the specific file one of the plurality of files, each of said plurality of file buffers being larger than one block size;

a judging step of judging whether data having been accumulated in the data accumulating step is no smaller than a block size; and

a writing step of writing, if the judging step results in the affirmative, to extract a block of data from the accumulated data and to write the extracted data into a free block of the recording medium, wherein

the judging step judges that the accumulated data is no smaller than the block size, when a total of quotients each calculated by dividing a size of data accumulated in respective one of the file buffers by a cluster size is no smaller than the predetermined number, and

the writing unit extracts data from the respective file buffers cluster by cluster until the predetermined number of clusters is reached, and writes the extracted data to the free block of the recording medium.

6. **(Currently Amended)** A program recorded on a computer-readable storage medium for execution by a file recording apparatus that includes a plurality of file buffers each for a different one of a plurality of files and that records data onto a recording medium, the recording medium being written in clusters and erased in blocks each composed of a predetermined number of contiguous clusters, the program comprising code configured to cause the file recording apparatus to perform:

a receiving step of receiving a request for writing data of a specific one of a plurality of files onto the recording medium;

a data accumulating step of accumulating the data requested to be written, in one of the ~~plurality of file buffers corresponding to the specific file one of the plurality of files, each of said~~ plurality of file buffers being larger than one block size;

a judging step of judging whether data having been accumulated in the data accumulating step is no smaller than a block size; and

a writing step of writing, if the judging step results in the affirmative, to extract a block of data from the accumulated data and to write the extracted data into a free block of the recording medium, wherein

the judging step judges that the accumulated data is no smaller than the block size, when a total of quotients each calculated by dividing a size of data accumulated in respective one of the file buffers by a cluster size is no smaller than the predetermined number, and

the writing unit extracts data from the respective file buffers cluster by cluster until the predetermined number of clusters is reached, and writes the extracted data to the free block of the

recording medium.

7. **(Currently Amended)** A program recorded on a computer-readable storage medium for execution by a file recording apparatus that includes a driver data buffer and that records data onto a recording medium, the recording medium being written in clusters and erased in blocks each composed of a predetermined number of contiguous clusters, the program comprising code configured to cause the file recording apparatus to perform:

a receiving step of receiving a write request that specifies a write address on the recording medium at which data is requested to be written;

a first judging step of judging, if the driver data buffer is not empty, whether the write address specified for the data requested to be written is contiguous to a write address specified for data stored on the driver data buffer;

a data accumulating step of accumulating, if the first judging step results in the affirmative, in the driver data buffer the data requested to be written, the driver data buffer being larger than one block size;

a second judging step of judging whether a write address specified for data accumulated in the driver data buffer falls on a block boundary of the recording medium; and

a write step of writing, if the second judging step results in the affirmative, a part of the accumulated data from a top of the driver data buffer up to a point corresponding to the block boundary, onto the recording medium, wherein

the second judging step judges that the accumulated data is no smaller than the block size, when a total of quotients each calculated by dividing a size of data accumulated in the driver data buffer by a cluster size is no smaller than the predetermined number, and

the writing step extracts data from the driver data buffer cluster by cluster until the predetermined number of clusters is reached, and writes the extracted data to the free block of the recording medium.

8. **(Original)** The program according to Claim 7, wherein the program comprises a filter driver

of the recording medium.

9. **(Currently Amended)** A file recording apparatus for recording data onto a recording medium which is written in clusters and erased in blocks each composed of a predetermined number of contiguous clusters, the file recording apparatus comprising:

a receiving unit configured to receive a request for writing data of a specific one of a plurality of files onto the recording medium;

a plurality of file buffers each for a different one of the plurality of files, and each of said plurality of file buffers being larger than one block size;

a data accumulating unit configured to accumulate the data requested to be written, in one of the ~~plurality of file buffers~~ corresponding to the specific ~~file~~ ~~one of the plurality of files~~;

a judging unit configured to judge whether a total size of data of the plurality of files having been accumulated in the plurality of file buffers by the data accumulating unit is no smaller than a block size; and

a writing unit configured, if the judging unit judges affirmatively, to extract a block of data from the accumulated data of the plurality of files and to write the extracted data into a free block of the recording medium, wherein

the judging unit judges that the accumulated data is no smaller than the block size, when a total of quotients each calculated by dividing a size of data accumulated in respective one of the file buffers by a cluster size is no smaller than the predetermined number, and

the writing unit extracts data from the respective file buffers cluster by cluster until the predetermined number of clusters is reached, and writes the extracted data to the free block of the recording medium.

10. **(Currently Amended)** The file recording apparatus according to Claim 1-9, wherein

the judging unit judges that the total size of data accumulated in the plurality of file buffers is no smaller than the block size, when a total of quotients each calculated by dividing a

size of data accumulated in a respective one of the plurality of file buffers by a cluster size is no smaller than the predetermined number, and

the writing unit extracts data from the respective one of plurality of file buffers cluster by cluster until the predetermined number of clusters is reached, and writes the extracted data to the free block of the recording medium.

11. **(Currently Amended)** The file recording apparatus according to claim-12, further comprising:

an erasing unit configured to erase the free block before the writing unit writes the extracted data to the free block.

12. **(Currently Amended)** A control method for a file recording apparatus that includes a plurality of file buffers each for a different one of a plurality of files and that records data onto a recording medium, the recording medium being written in clusters and erased in blocks each composed of a predetermined number of contiguous clusters, the method comprising:

a receiving step of receiving a request for writing data of a specific one of a plurality of files onto the recording medium;

a data accumulating step of accumulating the data requested to be written, in one of the ~~plurality of file buffers corresponding to the specific file one of the plurality of files, each of said plurality of file buffers being larger than one block size;~~

a judging step of judging whether a total size of data of the plurality of files having been accumulated in the plurality of file buffers in the data accumulating step is no smaller than a block size; and

a writing step of writing, if the judging step results in the affirmative, to extract a block of data from the accumulated data of the plurality of files and to write the extracted data into a free block of the recording medium, wherein

the judging step judges that the accumulated data is no smaller than the block size, when a total of quotients each calculated by dividing a size of data accumulated in respective one of the

file buffers by a cluster size is no smaller than the predetermined number, and
the writing step extracts data from the respective file buffers cluster by cluster until the
predetermined number of clusters is reached, and writes the extracted data to the free block of the
recording medium.

13. **(Currently Amended)** A program recorded on a computer-readable storage medium for execution by a file recording apparatus that includes a plurality of file buffers each for a different one of a plurality of files and that records data onto a recording medium, the recording medium being written in clusters and erased in blocks each composed of a predetermined number of contiguous clusters, the program comprising code configured to cause the file recording apparatus to perform:

a receiving step of receiving a request for writing data of a specific one of a plurality of files onto the recording medium;

a data accumulating step of accumulating the data requested to be written, in one of the ~~plurality of file buffers corresponding to the specific file one of the plurality of files, each of said plurality of file buffers being larger than one block size;~~

a judging step of judging whether a total size of data of the plurality of files having been accumulated in the plurality of file buffers in the data accumulating step is no smaller than a block size; and

a writing step of writing, if the judging step results in the affirmative, to extract a block of data from the accumulated data of the plurality of files and to write the extracted data into a free block of the recording medium, wherein

the judging step judges that the accumulated data is no smaller than the block size, when
a total of quotients each calculated by dividing a size of data accumulated in respective one of the
file buffers by a cluster size is no smaller than the predetermined number, and

the writing step extracts data from the respective file buffers cluster by cluster until the
predetermined number of clusters is reached, and writes the extracted data to the free block of the
recording medium.